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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/670,093	09/26/2000	Craig R. Shambaugh	00EC018/77779	3663
24628	7590	12/09/2004	EXAMINER	
			ALBERTALLI, BRIAN LOUIS	
		ART UNIT		PAPER NUMBER
		2655		

DATE MAILED: 12/09/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

DS

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	09/670,093	SHAMBAUGH ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Brian L Albertalli	2655	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

**A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.**

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) Responsive to communication(s) filed on 9/10/04.
- 2a) This action is **FINAL**.                    2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 1-26 is/are rejected.
- 7) Claim(s) \_\_\_\_\_ is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All    b) Some \* c) None of:
1. Certified copies of the priority documents have been received.
  2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                    | Paper No(s)/Mail Date: _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date: _____ | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
|   | 6) <input type="checkbox"/> Other: _____                                    |

**DETAILED ACTION**

***Response to Arguments***

1. Applicant's arguments filed September 10, 2004 have been fully considered but they are not persuasive.

Regarding claims 1, 11, and 26, the Applicant asserts that the word table of Farrell does not contain any "information content" of evaluated keywords in context, and therefore does not teach the step of comparing the information content of evaluated keywords with the information content with the information content of a plurality of expected customer responses. Lacking any explicit definition in the specification to rely upon, the term "information content" as described in the specification appears to be the output of the content processor 34. Content processor 34 performs natural language processing, using prior art techniques, in order to determine the information content of the keywords in context (page 7, lines 21-26). The output of content processor 34 is "information content" which is then passed to the information content processor 40 (page 8, 8-15).

As cited in the previous rejection of claims 1 and 11, Farrell discloses a natural language understanding server (column 3, line 67) that provides services to voice response application 62 (column 4, lines 7-9). Voice response application 62 searches the text of expected customer responses for occurrences of words or phrases *with the services of the natural language understanding server*. A natural language

understanding server inherently evaluates words in context to determine the information content of the keywords in context.

Regarding claim 21, Farrell discloses voice processing software 44 based on IBM's Voice Response for Windows (column 3, lines 45-59). Voice processing software 44 comprises a parsing processor and information content processor (the natural language understanding server inherently detects key words in context and evaluates the key words in context to determine an information content), as well as a information comparator (voice response application 62 searches the text of expected customer responses for occurrences of words or phrases *with the services of the natural language understanding server*).

Regarding claims 5 and 15, in response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., changing the script in response to high performances of an agent, rather than low performances of an agent) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). The low performance of an agent exceeds the threshold for low performance.

Therefore, the claim rejections made in the previous Office Action stand.

***Drawings***

2. The drawings were received on September 10, 2004. These drawings are acceptable.

***Specification***

3. The amendments to the claims overcome the objections set forth in the previous Office Action. The objections to the claims are withdrawn.

***Claim Rejections - 35 USC § 102***

4. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
5. Claims 1-2, 8, 11-12, 18, 21, and 26 are rejected under 35 U.S.C. 102(e) as being anticipated by Farrell (U.S. Patent 6,721,416).

In regard to claim 1, 11, and 26, Farrell discloses a method and apparatus that presents script to a telemarketer (agent). The method and apparatus recognizes the content of the response of a customer by instantiating a voice application (62) to monitor the voice interaction (column 5, lines 20-21). Key words are detected by the voice application (62) by searching the text for occurrences of words in the word table

(64) (column 5, lines 38-40). The detected keywords are evaluated in context to determine the information content by the voice processing software (44). The voice processing software (44) includes a natural language understanding server (column 3, line 67), which inherently determines the context of keywords to determine information content (column 3, line 67). The voice application (62) selects text from the word table (64) that most closely matches the words or phrases spoken (column 5, lines 38-40). Once a phrase spoken by the customer is identified, the voice application (62) presents a script corresponding to the customer response to the telemarketer (agent) (column 6, lines 7-10).

In regard to claim 2 and 12, Farrell discloses that the telemarketer's (agent's) word content is recognized (column 5, lines 32-37).

In regard to claims 8 and 18, Farrell discloses that a negative response (confrontational word) from the customer is recognized (column 6, lines 7-10).

In regard to claim 21, Farrell discloses an apparatus that presents script to a telemarketer (agent). The apparatus uses speech recognition software adapted to recognize word content of a customer (automatic speech recognition server 54 is based on IBM ViaVoice (column 4, lines 18-20). The parsing processor, information content processor and information comparator are all based on IBM's Voice Response for Windows (column 3, lines 45-59), which is adapted for use in the apparatus.

Workstations (14) include a script display (VDU) that presents script to the telemarketer (agent) corresponding to the customer response (column 6, lines 7-10).

***Claim Rejections - 35 USC § 103***

6. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

7. Claims 9-10 and 19 –20 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Farrell.

In regard to claims 9, 19, and 25, Farrell does not expressly disclose recognizing obscenities in the response of the customer. However, Farrell does recognize confrontational words and phrases as well as polite and non-polite words and phrases (column 6, lines 35-38). Obscenities could be considered both confrontational and non-polite, so adapting Farrell to recognize obscenities would provide another means of determining whether words and phrases were confrontational or non-polite.

It would have been obvious to one of ordinary skill in the art at the time of invention to modify Farrell to recognize obscenities in order to provide another means of determining whether words and phrases were confrontational or non-polite.

In regard to claims 10 and 20, Farrell does not disclose a means of terminating the conversation after a negative response has been recognized. It would be an

obvious matter of design choice to modify Farrell so a call was terminated once a negative response was recognized. If a customer is confrontational to the point of using obscenities, there is generally no need to continue the conversation. It would have been obvious to one of ordinary skill in the art at the time of invention to terminate the conversation because terminating the conversation would allow the telemarketer (agent) to continue with another customer.

8. Claims 3-5, 13-15, and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Farrell in view of Walker et al. (U.S. Patent 6,567,787).

In regard to claims 3, 13, and 22, Farrell discloses all the features of the instant claimed invention, except detecting deviations between the recognized word content of the telemarketer and the presented script.

Walker et al. discloses a system of detecting deviations between the recognized word content of a telemarketer and the presented script (column 16, lines 29-33). The system generates a script (prompt) to be spoken (Fig. 8A, 808) and then recognizes the spoken response of the telemarketer (812) (column 8, lines 63-68, and column 9, lines 1-15). The system then checks if the telemarketers word content deviates from (does not correspond to) the given script (prompt) (814) (column 9, lines 16-18). Modifying Farrell to check if the telemarketers recognized word content deviates from the presented script as taught by Walker et al. would allow further action to be taken, such as preventing touch screen controllers from appearing, if the telemarketer deviated from

the presented script, as taught by Walker et al. (column 9, lines 36-39 and column 16, ins 29-33).

Therefore, It would have been obvious to one of ordinary skill in the art at the time of invention to modify Farrell to check if the telemarketers recognized word content deviates from the presented script, in order to take a further action if the recognized word content deviated from the presented script.

In regard to claims 4 and 14, Farrell discloses all the features of the instant claimed invention except detecting deviations between the recognized word content of the telemarketer and the presented script and measuring an objective performance level of the telemarketer and associating the measured performance level with the deviation.

Walker et al. discloses a system of detecting deviations between the recognized word content of a telemarketer and the presented script that further includes an objective measure of the telemarketer. Walker et al. discloses a table (300) which includes a measure of the number of transactions in which the telemarketer (operator) participated (326), the number of transactions in which the verbal message was spoken properly by the telemarketer (operator) (328), and the of percentage times the message was spoken properly (330) (column 5, lines 46-62). Modifying Farrell to include a means of measuring an objective performance level as taught by Walker et al. would allow the telemarketers performance to be tracked and incentives such as bonuses could be offered based on that telemarketer's performance as taught by Walker et al. (column 6, lines 24-28).

It would have been obvious to one of ordinary skill in the art at the time of invention to modify Farrell to include a means of measuring an objective performance level as taught by Walker et al. in order to allow the telemarketers performance to be tracked so as to award incentives.

In regard to claims 5 and 15, Farrell discloses monitoring the voice interaction between a telemarketer (agent) and a customer and checking to see if the dialogue of the telemarketer (agent) has caused the performance level (confrontation value) to exceed a threshold and if so, changing the script presented to the telemarketer (column 6, lines 1-5).

Farrell does not disclose detecting deviations between the recognized word content of the telemarketer and the presented script and measuring an objective performance level of the telemarketer, associating the measured performance level with the deviation, and changing the script when the performance level exceeds a threshold level.

Walker et al. discloses a system of detecting deviations between the recognized word content of the telemarketer and the presented script and calculating a performance measurement based on deviations from the script (column 5, lines 46-62). Using the objective performance measurement as taught by Walker et al. as the basis for the threshold level used to change the script presented to the telemarketer as taught by Farrell would allow the scripts to be adapted to the current user so that simpler

scripts could be provided to telemarketers (operators) less adept at providing complex verbal messages, as taught by Walker et al. (column 6, lines 11-23).

It would have been obvious to one of ordinary skill in the art at the time of invention to use the objective performance measurements as taught by Walker et al. as the basis for the threshold level used to change the script presented to the telemarketer as taught by Farrell in order to adapt the scripts to the current user so that simpler scripts could be provided to telemarketers (operators) less adept at providing complex verbal messages as taught by Walker et al. (column 6, lines 11-23).

9. Claims 6-7, 16-17, and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Farrell, as applied to claims 1 and 11, in view of Knight (U.S. Patent 6,313,833).

Farrell discloses all features of the instant claimed invention except subjectively evaluating a response of the customer by the telemarketer, using that subjective evaluation to resolve ambiguity, and a cursor and receptiveness chart used by the telemarketer to subjectively evaluate the customer.

Knight discloses an application for use by a telemarketer that measures allows the telemarketer (user) to subjectively evaluate the response of a customer (column 12, lines 17-24).

The application includes a feedback window (260) that allows the telemarketer (user) to visually display data input into the data window (210) thereby resolving any ambiguity column 11, lines 48-55).

Additionally, the application allows the telemarketer (user) to move a cursor (object or data parameter) onto a receptiveness chart (canvas 215) allowing the telemarketer (user) to subjectively evaluate a customer (column 7, lines 39-58).

Modifying Farrell to include a cursor and receptiveness chart to subjectively evaluate the telemarketer (user) would provide meaningful analyses of subjective data that could be used to present potential options to the telemarketer, as taught by Knight (column 3, lines 54-56 and column 12, lines 21-23).

It would have been obvious to one of ordinary skill in the art at the time of invention to include a receptiveness chart to subjectively evaluate a customer's response in order to provide meaningful analyses of subjective data that could be used to present potential options to the telemarketer, as taught by Knight.

### ***Conclusion***

10. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian L Albertalli whose telephone number is (703) 305-1817. The examiner can normally be reached on Mon - Fri, 8:00 AM - 5:30 PM, every second Fri off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Talivaldis Smits can be reached on (703) 305-3011. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

BLA 11/23/04



DAVID L. OMETZ  
PRIMARY EXAMINER